

CLAIMS:

1. A low-pressure mercury vapor discharge lamp comprising:
a light-transmitting discharge vessel (10) enclosing, in a gastight manner, a discharge space (13) provided with a filling of mercury and a rare gas,
the discharge vessel (10) comprising discharge means for maintaining a
5 discharge in the discharge space (13),
the discharge vessel (10) being provided with a container (3) comprising an amalgam (2),
the container (3) being provided with releasing means (4) for the controlled release of mercury vapor from the amalgam (2),
10 the releasing means (4) being open during lamp operation,
the releasing means (4) being substantially closed when, during lamp operation, the temperature of the amalgam (2) becomes higher than a pre-determined temperature.
- 15 2. A low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the pre-determined temperature corresponds to a temperature of a range of temperatures at which the mercury-vapor pressure above the amalgam (2) is relatively stable.
- 20 3. A low-pressure mercury vapor discharge lamp as claimed in claim 2, characterized in that the pre-determined temperature corresponds to 75-110% of the lowest temperature of the range of temperatures at which the mercury-vapor pressure above the amalgam (2) is relatively stable.
- 25 4. A low-pressure mercury vapor discharge lamp as claimed in claim 1, 2, or 3, characterized in that the releasing means (4) comprises a resilient means (6) made of a shape-memory alloy, the transformation temperature of the shape-memory alloy being chosen to correspond substantially to the pre-determined temperature, the resilient means (6) being

substantially closed when the shape-memory alloy reaches the transformation temperature of the shape-memory alloy.

- 5 5. A low-pressure mercury vapor discharge lamp as claimed in claim 1, 2 or 3, characterized in that the product of the mercury pressure p_{Hg} and the internal diameter D_{in} of the discharge vessel (10) is in the range $0.13 \leq p_{\text{Hg}} \times D_{\text{in}} \leq 8 \text{ Pa.cm}$.
6. A low-pressure mercury vapor discharge lamp as claimed in claim 5, characterized in that the product of the mercury pressure p_{Hg} and the internal diameter D_{in} of
10 the discharge vessel (10) is in the range $0.13 \leq p_{\text{Hg}} \times D_{\text{in}} \leq 4 \text{ Pa.cm}$.
7. A low-pressure mercury vapor discharge lamp as claimed in claim 1, 2, or 3, characterized in that the discharge vessel (10) contains less than 0.1 mg mercury.
- 15 8. A low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the releasing means (4) is open during lamp-off periods.
9. A compact fluorescent lamp comprising a low-pressure mercury-vapor discharge lamp as claimed in claim 1, 2, or 3, the compact fluorescent lamp comprising:
20 at least two dual-shaped lamp parts (35; 36; 37), each comprising a first tube (41; 45; 49) and a second tube (43; 47; 51),
the first tube (41; 45; 49) and the second tube (43; 47; 51) at a first end portion (41a, 43a; 45a, 47a; 49a, 51a) of each tube (41, 43; 45, 47; 49, 51) being interconnected via a tube interconnection means (42; 46; 50),
25 a discharge path being formed through the tubes (41, 43; 45, 47; 49, 51) between a first (20a) and a second electrode (20b), each electrode (20a, 20b) being provided at a second end portion (41b; 51b) of one of the tubes (41; 51), the second end portions (41b; 51b) facing away from the first end portions (41a; 51a), the electrodes (20a; 20b) being provided at extreme ends of the fluorescent lamp,
30 further second end portions (43b; 45b; 47b; 49b) of the tubes (43; 45; 47; 49) being provided with a sealed end,
bridge parts (44; 48) for mutually connecting tubes (43, 45; 47, 49) of adjacent dual-shaped lamp parts (35, 36; 36, 37) being provided in the proximity of the second end portions (43b, 45b; 47b, 49b) of the tubes (43, 45; 47, 49),

at least one of the further second end portions (45b) being provided with the container (3) comprising the amalgam (2).

10. A compact fluorescent lamp as claimed in claim 9, characterized in that a
5 heating means (25) is provided at the further second end portion (45b).

11. A compact fluorescent lamp as claimed in claim 9, characterized in that the tube interconnection means (42; 46; 50) is either a bridge portion or a bent portion.

10 12. A compact fluorescent lamp as claimed in claim 9, characterized in that a lamp housing (70) is attached to the discharge vessel (10) of the low-pressure mercury-vapor discharge lamp, which lamp housing is provided with a lamp cap (71).